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Professional Profile

Dr. Nahar is a Board-Certified Toxicologist (DABT) with over 9 years of government experience, specifically in the field of toxicology, industrial chemicals, and product stewardship. She has supported existing and new chemical risk evaluations (such as PMNs and LVEs) under the US EPA's Toxic Substances Control Act, and hazard and alternatives assessments under the US EPA's Pollution Prevention Act.

Prior to joining Exponent, Dr. Nahar managed the Safer Chemical Ingredient List (SCIL) for the US EPA Safer Choice certification program and led updates to the standard and human & environmental health criteria. In her role, she reviewed chemical formulations, product performance, and packaging for industrial/consumer products in the cleaning sector. She also leveraged SCIL and toxicological tools (such as read-across, QSAR, ToxCast) to support the designation of 20 Low-Priority Substances under TSCA.

Dr. Nahar's academic training is in children's environmental health and developmental origins of adult disease. Her doctoral training focused on prenatal exposures to endocrine disruptors (BPA, phthalates) and their effects on the epigenome and developmental programming of metabolizing enzymes.

Academic Credentials & Professional Honors

Ph.D., Toxicology, University of Michigan, Ann Arbor, 2014

B.A., Molecular biology, Wesleyan University, 2009

US EPA Administrator's 32nd Annual Small Business Award, 2022

Diplomate of the American Board of Toxicology (DABT), 2018

US Presidential Management Fellowship, 2016-2018

Licenses and Certifications

Diplomate of the American Board of Toxicology (DABT)

Prior Experience

Toxicologist, US EPA Safer Choice Program, 2016-2020, 2021-2023

Human Health Risk Assessor, US EPA TSCA New Chemicals Program, 2020-2021

Staff Officer (Detail), USDA Food Safety & Inspection Service, 2017-2018

Environmental Health Fellow, US EPA Office of Children's Health Protection, 2014-2016

Professional Affiliations

Society of Toxicology (SOT), 2011- present

American Public Health Association (APHA), 2015-2017

International Society of Environmental Epidemiology (ISEE), 2011, 2015-2016

Publications

Nahar MS, Dolinoy DC (2018). "Endocrine Disruptors and Critical Windows: Development and Disruption of the Thyroid Hormone Pathway in Early Life." In: McQueen, C. A., Comprehensive Toxicology Third Edition. Vol. 5, pp. 257–276. Oxford: Elsevier Ltd.

Faulk C, Kim JH, Anderson OS, Nahar MS, Jones TR, Sartor MA, Dolinoy DC (2012). Detection of differential DNA methylation in repetitive DNA of mice and humans perinatally exposed to bisphenol a. EpiGenetics; 11(7): 489-500.

Moscovitz JE, Nahar MS, Shalat SL, Slitt AL, Dolinoy DC, Aleksunes LM (2016). Correlation between conjugated bisphenol A concentrations and efflux transporter expression in human fetal livers. Drug Metabolism and Disposition 44(7):1061-5.

Faulk C, Kim JH, Rozek LS, Jones TR, McEachin RC, Nahar MS, Dolinoy DC, Sartor MA (2016). Bisphenol A-associated alterations in genome-wide DNA methylation and gene expression patterns reveal sequence-dependent and non-monotonic effects in human fetal liver. Environmental Epigenetics.

Nahar MS, Liao C, Kannan K, Harris C, Dolinoy DC (2015). In utero Bisphenol A concentration, metabolism, and global DNA methylation across matched placenta, kidney, and liver in the human fetus. Chemosphere 124:54-60.

Kim JH, Sartor M, Rozek LS, Faulk C, Anderson OS, Jones TR, Nahar MS, Dolinoy DC (2014). Perinatal bisphenol a exposure promoters dose-dependent alterations of the mouse methylome. BMC Genomics 15(1):30.

Nahar MS, Kim JH, Sartor MA, Dolinoy DC (2014). Bisphenol A-associated alterations in expression and epigenetic regulation of xenobiotic metabolizing enzymes in human fetal liver. Environ Mol Mutagenesis 55(3):184-195.

Sant KE, Dolinoy DC, Nahar MS, and Harris C. (2013) Inhibition of proteolysis in histiotrophic nutrition pathways alters DNA methylation and one-carbon metabolism in the organogenesis-stage rat conceptus. J Nutr Biochem 24(8): 1479-87.

Nahar MS, Liao C, Kannan K, Dolinoy DC (2013). Fetal Liver Bisphenol A Concentrations and Biotransformation Gene Expression Reveal Variable Exposure and Altered Capacity for Metabolism in Humans. J Biochem Mol Toxicol 27(2): 116-23.

Kim JH, Rozek LS, Soliman AS, Sartor MA, Hablas A, Seifeldin IA, Colacino JA, Weinhouse C, Nahar MS, Dolinoy DC (2013). Bisphenol A-associated epigenomic changes in prepubescent girls: a cross-sectional study in Gharbiah, Egypt. Environ Health, 12(1): 33.

Nahar MS, Soliman AS, Colacino JA, Calafat AM, Battige K, Hablas A, Seifeldin IA, Dolinoy DC, Rozek LS (2012). Urinary bisphenol a concentrations in girls from rural and urban Egypt: a pilot study. Environ Health 11(1):20.

Anderson OS, Nahar MS, Faulk C, Jones TR, Liao C, Kannan K, Weinhouse C, Rozek LS, Dolinoy DC (2012). Epigenetic responses following maternal dietary exposure to physiologically relevant levels of bisphenol A. Environ Mol Mutagen 53(5):334-42.

Virani S, Dolinoy DC, Halubai S, Jones TR, Domino SE, Rozek LS, Nahar MS, Padmanabhan V (2012). Delivery type not associated with global methylation at birth. Clin Epigenetics 4(1):8. Sant KE, Nahar MS, Dolinoy DC (2012). “DNA Methylation Screening and Analysis” in Methods in Molecular Biology; Volume Title: Developmental Toxicology, Edited by John M. Walker. Humana Springer.

Weinhouse C, Anderson OS, Jones TR, Kim J, Liberman SA, Nahar MS, Rozek LS, Jirtle RL, Dolinoy DC (2011). An expression microarray approach for the identification of metastable epialleles in the mouse genome. Epigenetics, 6(9): 1105-13.

Colacino JA, Soliman AS, Calafat AM, Nahar MS, Van Zomeren-Dohm A, Hablas A, Seifeldin IA, Rozek LS, Dolinoy DC (2011). Exposure to phthalates among premenstrual girls from rural and urban Gharbiah, Egypt: a pilot exposure assessment study. Environ Health 10:40.

Presentations

Nahar MS, Kirk A (September 2022). EPA’s Safer Choice and Design for the Environment Programs. Oral presentation, US EPA’s Toxics Release Inventory (TRI) Conference. Virtual.

Nahar MS, Mitchell C, Sweet L, Rudisill C, Riccardi M, Melia J, Davies C (March 2020). Screening Hazard Information for Low-Priority Substances under the Toxic Substances Control Act (TSCA). Poster Presentation. Society of Toxicology, Virtual.

Rudisill C, Morlacci L, Nahar MS (March 2018). Novel Approaches to Safer Chemical Identification for the US EPA’s Safer Chemical Ingredients List. Poster Presentation. Society of Toxicology, San Antonio, Texas.

Nahar MS, Menasche C, Rudisill C, Morlacci L (March 2018). Hazard and Efficacy Comparison across Five Preservatives from US EPA’s Safer Chemical Ingredient List. Poster Presentation. Society of Toxicology, San Antonio, Texas.

Nahar MS, Dzubow R, Foos B (September 2016). Epidemiology and Risk Assessment. Poster Presentation. International Society of Environmental Epidemiology Meeting, Rome, Italy.

Nahar MS, Dzubow R, Foos B (September 2015). Thyroid disruption research and regulation: challenges and lessons learned. Poster Presentation. International Society of Environmental Epidemiology Meeting, Sao Paulo, Brazil.

Sukaew T, Huang S, Nahar MS, Premthaisong A (September 2015). Fluoride exposure and dental fluorosis in school children in Nikom Patthana, Phitsanulok, Thailand. Poster Presentation. International Society of Environmental Epidemiology Meeting, Sao Paulo, Brazil.

Weinhouse C, Nahar MS, Anderson OS, Dolinoy DC (September 2014). Putative early life epigenetic biomarkers of hepatocellular carcinoma in mice perinatally exposed to bisphenol a. Poster Presentation. Environmental Mutagenesis and Genomics Society, Orlando, FL.

Nahar MS, Liao C, Kannan K, Dolinoy DC (March 2014). Quantification of tissue bisphenol A and global methylation profiles in kidney, liver, and placenta from 1st and 2nd trimester human clinical samples. Poster Presentation. Society of Toxicology Annual Meeting, Phoenix, AZ.

Nahar MS (September 2013). BPA associated alterations in expression and epigenetic regulation of xenobiotic metabolizing enzymes in human fetal liver. Oral presentation. Environmental Mutagenesis and Genomics Society, Monterey, CA.

Nahar MS (August 2013). Epigenetic analysis in environmental epidemiology. Oral Presentation. Gordon Research Seminar in Toxicology, Andover, NH.

Nahar MS, Kim JH, Rozek LS, Sartor MA, Dolinoy DC (August 2013). BPA-dependent changes in expression and epigenetic regulation of xenobiotic metabolizing enzymes in human fetal liver. Poster Presentation. Gordon Conference in Cellular and Molecular Mechanisms in Toxicology, Andover, NH.

Nahar MS, Kim JH, Rozek LS, Sartor MA, Dolinoy DC (March 2013). Global and Epigenome-wide Methylation Profiles in Human Fetal Liver Samples Characterized for Bisphenol A Exposure. Poster Presentation. Society of Toxicology Annual Meeting, San Antonio, TX.

Nahar MS, Dolinoy DC (March 2012). In utero bisphenol a alters phase I and II metabolizing enzyme expression in human fetal liver tissue. Poster Presentation. Society of Toxicology Annual Meeting, San Francisco, CA.

Nahar MS, Liao C, Kannan K, Rozek LS, Dolinoy DC (September 2011). Quantification of Free and Conjugated Bisphenol A in Human Liver Tissues. Poster Presentation. International Society of Environmental Epidemiology Annual Meeting, Barcelona, Spain.

Virani S, Nahar MS, Padmanabhan V, Rozek LS, Dolinoy DC (September 2011). Type Not Associated with Differential Methylation at Birth. Poster Presentation. International Society of Environmental Epidemiology Annual Meeting, Barcelona, Spain.

Nahar MS, Dolinoy DC (August 2011). Gene Expression of Bisphenol A-Related Xenobiotic Metabolism Enzymes in the Developing Human Fetus. Poster Presentation. Gordon Conference in Cellular and Molecular Mechanisms in Toxicology, Andover, NH.

Nahar MS, Weinhouse C, Anderson OS, Jones TR, Liberman SA, Rozek LS, Dolinoy DC (March 2011). In utero Bisphenol A Exposure Alters Metastable Epiallele and Global DNA Methylation Patterns in Mouse Offspring. Poster Presentation. Society of Toxicology Annual Meeting, Washington, D.C.

Sant KE, Nahar M, Dolinoy DC, Harris C (March 2011). Histiotrophic Nutrition Informs DNA Methylation in the Rat Conceptus. Poster Presentation. Society of Toxicology Annual Meeting, Washington, D.C.

Anderson OS, Nahar M, Jones TR, Dolinoy DC (March 2011). Dose-Dependent Shifts in Avy Coat Color Distribution Following Maternal Dietary Exposure to Bisphenol A. Poster Presentation. Society of Toxicology Annual Meeting, Washington, D.C.

Colacino JA, Soliman A, Calafat A, Nahar M, Van Zomeren-Dohm A, Seifeldin I, Hablas A, Rozek LS, Dolinoy DC (March 2011). Exposure to Phthalates among Premenstrual Girls from Rural and Urban, Gharbiah, Egypt. Poster Presentation. Society of Toxicology Annual Meeting, Washington, D.C.

Ku T, Bourne HL, Tirtajana S, Nahar MS, Kading T (December 2009). The Geochemical Record of Cultural Eutrophication and Remediation Efforts in Three Connecticut Lakes. Poster Presentation. American Geophysical Union, San Francisco, CA.

Nahar MS, Holmes SG (July 2008). 2 Micron Circle Gene Regulation: a Sir Effect? Poster Presentation. Yeast Molecular Biology and Genetics Conference, Toronto, Canada.

Project Experience

Dr. Nahar has experience working in federal and international working groups. For the OECD Ad Hoc Group on Substitution of Harmful Chemicals, she managed the OECD Substitution and Alternative Assessment (SAA) Toolbox and contributed to key publications and analyses to support substitution of chemicals of concern across government and industry. Dr. Nahar also contributed to risk assessment and management decisions for TSCA Workplan chemicals (e.g. Methylene Chloride and NMP), as well as coordinated responses to petitions under TSCA section 21 (e.g. polyvinyl alcohol).

Peer Reviews

Scientific reports, 2020

International journal of medical sciences, 2020